



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,758	08/06/2003	Yuji Nakagawa	108075-00114	6859
4372	7590	10/12/2006	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			NGUYEN, THAN VINH	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/634,758

Applicant(s)

NAKAGAWA, YUJI

Examiner

Than Nguyen

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133): Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 and 31-38 is/are allowed.
- 6) ☒ Claim(s) 29,30,39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

- 1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/06 has been entered.
- 2) This is a response to the amendment, filed 7/12/06.
- 3) Claims 1-40 are pending.

***Claim Rejections - 35 USC § 112***

- 4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 5) Claims 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims a method for manufacturing a semiconductor device. However, none of the claimed steps of the method relate to manufacturing a semiconductor device. Applicant claims "executing the first access mode after the first access mode is finished". This limitation is vague and indefinite. Is the first access mode being repeated indefinitely? The Examiner requests Applicant point out where in the specification this limitation is disclosed. Applicant also claims, "measuring a period ..." but does not indicate what type of period is being measured? Is it a time period or interval?

Art Unit: 2187

Applicant also does not perform any operation/use with the measured period (in this claim and its dependent). Thus this claimed step is vague and indefinite. Claim 30 is also rejected for incorporating the same fault as claim 29.

- 6) Claim 39 recites the limitation "the predetermined time" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- 7) Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 40 claims "The semiconductor device according to claim 21..." Claim 21 is a method claim. Thus the metes and bounds of this claim cannot be determined.

***Claim Rejections - 35 USC § 102***

- 8) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 9) Claims 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizugaki et al (US 6,545,943).

As to claim 29:

- 10) Mizugaki teaches the claimed method comprising:

supplying a second entry signal for entering a second access mode (read/write/refresh operation mode; 2/33-52);

Art Unit: 2187

supplying a first entry signal for entering a first access mode within a predetermined period after supplying the second entry signal (read/write/refresh operation mode; 2/33-52);

enabling a predetermined word line in accordance with the first entry signal and second access mode (word line activation; 2/57-3/8);

executing the first access mode (3/12-22);

measuring a period from a point when the first entry signal is supplied and first access mode is finished (3/45-54).

As to claim 30:

11) Mizugaki teaches the device has a test mode and further comprises an exclusive test terminal to which the second entry signal for the test mode is supplied (internal and external modes; Abstract; 5/35-67).

***Allowable Subject Matter***

12) Claims 1-28,31-38 are allowed.

13) As to claim 1,18 the prior art of record does not further teach giving priority to the first access mode when the arbiter receives the first entry signal during the time after the second entry signal is supplied and before a predetermined word line is enabled in the second access mode.

14) Claims 2-17 and 33-35 are also allowable for incorporating the limitations of claim 1, and further limitations.

15) Claims 19-20 are also allowable for incorporating the limitations of claim 18, and further limitations.

Art Unit: 2187

- 16) As to claim 21, the prior art does not further teach detecting if the first entry signal has been supplied within a predetermined period after execution of the second access mode has been started and before a predetermined word line of a plurality of word lines is enabled in the second access mode and executing the first access priority over the second access mode when such first entry signal is detected.
- 17) Claims 22-28 are also allowable for incorporating the limitations of claim 18, and further limitations.
- 18) As to claim 31, the prior art does not further teach the arbiter interrupting the second access mode and gives priority to the first access mode when the arbiter receives the first entry signal before a predetermined word line of the plurality of word lines is enabled in the second access mode and after the priority of the second mode has been determined.
- 19) As to claim 32, the prior art does not further teach the arbiter giving priority to the first access mode when the arbiter receives the first entry signal before the address generating circuit generates the address to be used in the second access mode and after the priority of the second access mode has been determined.
- 20) Claims 36-38 are also allowable for incorporating the limitations of claim 32, and further limitations.
- 21) Claims 39,40 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

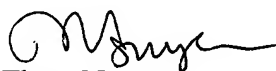
***Conclusion***

Art Unit: 2187

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Than Nguyen whose telephone number is 571-272-4198. The examiner can normally be reached on 8am-3pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Than Nguyen  
Primary Examiner  
Art Unit 2187